



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,082	09/27/2005	Hans Hannu	P18175-US1	6356
27045	7590	07/20/2009	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			BENOIT, ESTHER	
ART UNIT	PAPER NUMBER			
		2442		
MAIL DATE	DELIVERY MODE			
07/20/2009	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,082	<b>Applicant(s)</b> HANNU ET AL.
	<b>Examiner</b> ESTHER BENOIT	<b>Art Unit</b> 2442

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 March 2009.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 27-53 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 27-53 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/30/2009</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendments***

1. Claims 27-53 are pending in this application. Claims 27, 39, 43, 49, and 51-53 have been amended.

***Response to Arguments***

2. Applicant's arguments, filed 03/11/2009, have been fully considered but they are not persuasive. The applicants are arguing in substance the following:

**Arguments under 35 U.S.C. 101**

***Arguments to 35 USC § 101:***

a) The claims are written in "means-plus-function" format and therefore are directed to statutory subject matter.

***Response to arguments of 35 U.S.C. 101:***

a) The applicants have not shown evidence that such corresponding means is not directed to software. Disclosed in paragraph [0067] of the specification, is evidence that the units performing the functionality of the "means for" limitations may be software. Accordingly, the claims are non-statutory.

**Arguments under 35 U.S.C. 102 (a)**

***Arguments to Claim 1:***

- a) The prior art does not suggest or disclose a description or definition for "state".
- b) The prior art's "shared state" does not correspond to the "state" found in claim 27.

***Response to arguments of Claim 1:***

As to point a: On page 6, paragraph 1, "State reference Model", state is referred to as the status of a UDVM, where the UDVM includes compressed message information that is received from a message compressor.

As to point b: On page 4, shared state is referred to a "state used for shared compression". The limitations of claim 27 do not distinguish over the prior art reference because the description of "shared state" falls within the scope of the claim.

As to any claims not specifically discussed, the applicants argued that it was patentable for one of the reasons discussed above. Please see response to above arguments for unspecified discussions.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 39-53 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter. The "means for" found in claims 39-53 are directed to software, which is not patentable subject matter.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 27-53 are rejected under 35 U.S.C. 102(a) as being anticipated by Hannu et al. in RFC 3321, which was published January 2003.

**With respect to 27,** In RFC 3321, Hannu discloses initiating said message-based inter-unit communication by providing, in said first communications unit, a state comprising communications unit-associated data common to multiple communications messages to be transmitted between said first communications unit and said second communications unit (pg. 3, Figure 1) generating a copy of said state (pg. 4, "4.1. Overview of...", lines 3-4, "If compressor...") transmitting said state copy and a first identifier of said state copy from said first communications unit to said second communications unit (pg. 7, Figure 2, *where it can be seen that m1(s0) is transmitted from the first unit to the second*) generating a second identifier based on said received state copy (pg. 5, paragraph 1, "Legend: Message 1...") comparing said received first identifier and said generated second identifier (pg. 9, "(4): If endpoint 2...") storing said state copy in said second communications unit (pg. 7, Figure 2) and processing, if said second identifier corresponds to said first identifier, a communications message of said multiple communications messages using said state or said state copy by modulating a size of said communications message based on at least a portion of said

communications unit-associated data (pg. 4, "4.1. Overview of...", *where the message is compressed and decompressed*)

**With respect to 28,** In RFC 3321, Hannu discloses said first communications unit removing at least a portion of said communications unit-associated data in said state from said communications message to obtain a reduced-size communications message (pg. 4, "4.1. Overview of...", *where the message is compressed and decompressed*) and said first communications unit transmitting said reduced-size communications message to said second communications unit (pg. 7, Figure 2)

**With respect to 29,** In RFC 3321, Hannu discloses said second communications unit adding at least a portion of said communications unit-associated data in said state copy to said reduced-size communications message to obtain said communications message (pg. 4, "4.1. Overview of..." )

**With respect to 30,** In RFC 3321, Hannu discloses said second communications unit removing at least a portion of said communications unit-associated data in said state copy from said communications message to obtain a reduced-size communications message (pg. 7, Figure 2) and said second communications unit transmitting said reduced-size communications message to said first communications unit (pg. 7, Figure 2)

**With respect to 31,** In RFC 3321, Hannu discloses said first communications unit adding at least a portion of said communications unit-associated data in said state

to said reduced-size communications message to obtain said communications message (pg. 7, Figure 2)

**With respect to 32,** In *RFC 3321*, Hannu discloses storing said state copy in a compartment dedicated to said first communications unit at said second communications unit if said second identifier corresponds to said first identifier (pg. 7, Figure 2)

**With respect to 33,** In *RFC 3321*, Hannu discloses copying said state copy from said compartment dedicated to said first communications unit at said second communications unit to a locally available state memory at said second communications unit (pg. 7, Figure 2)

**With respect to 34,** In *RFC 3321*, Hannu discloses storing said state in a locally available state memory at said first communications unit (pg. 7, Figure 2)

**With respect to 35,** In *RFC 3321*, Hannu discloses said inter-unit communication comprises compressed message-based communication between said first and second communications unit, said method comprising the step of said first communications unit compressing said communications message based on said state, and said processing step comprises the step of said second communications unit decompressing said compressed communications message based on said state copy (pg. 7, Figure 2)

**With respect to 36,** In *RFC 3321*, Hannu discloses said inter-unit communication comprises compressed message-based communication between said

first and second communications unit, said method comprising the step of said second communications unit compressing said communications message based on said state copy, and said processing step comprises the step of said first communications unit decompressing said compressed communications message based on said state (pg. 7, Figure 2)

**With respect to 37,** In *RFC 3321*, Hannu discloses said multiple communications messages are compressed using a SigComp compression (Abstract)

**With respect to 38,** In *RFC 3321*, Hannu discloses said second communications unit receiving an acknowledge identifier from said first communication unit (pg. 7, "5.1. Explicit Acknowledgement...") and said second communications unit returning said acknowledge identifier to said first communications unit if said second identifier corresponds to said first identifier (pg. 7, "5.1. Explicit Acknowledgement...")

**With respect to 39,** In *RFC 3321*, Hannu discloses means for receiving a copy of a state comprising communications unit-associated data common to multiple communications messages to be transmitted between said communications unit and said external communications unit (pg. 7, Figure 2) means for receiving a first identifier of said state copy (pg. 7, Figure 2) means for generating a second identifier based on said received state copy (pg. 5, paragraph 1, "Legend: Message 1...") means for comparing said received first identifier and said generated second identifier (pg. 9, "(4): If endpoint 2...") storing said state copy (pg. 7, Figure 2) and means, responsive to said comparing means, for processing a communications message of said multiple

Art Unit: 2442

communications messages using said stored state copy if said second identifier corresponds to said first identifier, said processing means being configured for modulating a size of said communications message based on at least a portion of said communications unit-associated data in said state copy (pg. 4, "4.1. Overview of...",  
*where the message is compressed and decompressed*)

**With respect to 40,** In *RFC 3321*, Hannu discloses said communications message is a reduced-size communications message and processing means comprises means for adding at least a portion of said communications unit-associated data in said state copy to said reduced-size communications message (pg. 7, Figure 2)

**With respect to 41,** In *RFC 3321*, Hannu discloses a compressor and decompressor, said adding means being provided in said decompressor for decompressing a received compressed communications message from said external communications unit by adding said at least a portion of said communications unit-associated data in said state copy to said compressed communications message (pg. 7, Figure 2)

**With respect to 42,** In *RFC 3321*, Hannu discloses said processing means comprises means for removing at least a portion of said communications unit-associated data in said state copy from said communications message (pg. 7, Figure 2)

**With respect to 43,** In *RFC 3321*, Hannu discloses a compressor and decompressor, said removing means being provided in said compressor for compressing a communications message intended to said external communications unit

by removing said at least a portion of said communications unit-associated data in said state copy from said communications message (pg. 7, Figure 2)

**With respect to 44,** In *RFC 3321*, Hannu discloses said compressor and decompressor are configured for signal compression and decompression using a SigComp protocol (Abstract)

**With respect to 45,** In *RFC 3321*, Hannu discloses said comparing means is configured for generating a storing command if said second identifier corresponds to said first identifier and said storing means is configured for storing said state copy upon reception of said storing command (pg. 7, Figure 2)

**With respect to 46,** In *RFC 3321*, Hannu discloses said storing means is configured for storing said state copy in a compartment dedicated to said external communications unit (pg. 7, Figure 2)

**With respect to 47,** In *RFC 3321*, Hannu discloses means for copying said state copy from said compartment dedicated to said external communications unit to a locally available state memory (pg. 7, Figure 2)

**With respect to 48,** In *RFC 3321*, Hannu discloses responsive to said comparing means, for transmitting an acknowledge identifier to said external communications unit if said second identifier corresponds to said first identifier (pg. 7, "5.1. Explicit Acknowledgement...")

**With respect to 49,** In *RFC 3321*, Hannu discloses means for generating a state comprising communications unit-associated data common to multiple communications messages to be transmitted between said communications unit and said external communications unit (pg. 7, paragraph 1, "Legend: Message 1...") means for storing said state (pg. 7, Figure 2) means for generating a copy of said state (pg. 4, "4.1. Overview of...", lines 3-4, "If compressor...") means for providing said state copy for storage in said external communications unit and for providing a first identifier of said state copy to said external communications unit (pg. 7, Figure 2) means for receiving an acknowledge identifier from said external communications, said acknowledge identifier being transmitted in response to a correspondence between said first identifier and a second identifier, said second identifier being generated by said external communications unit based on said state copy (pg. 7, "5.1. Explicit Acknowledgement...") and means, responsive to said receiving means, for processing a communications message of said multiple communications messages using said stored state if said second identifier corresponds to said first identifier as determined by reception of said acknowledge identifier (pg. 7, "5.1. Explicit Acknowledgement..."), said processing means being configured for modulating a size of said communications message based on at least a portion of said communications unit-associated data in said state (pg. 4, "4.1. Overview of...")

**With respect to 50,** In *RFC 3321*, Hannu discloses said processing means comprises means for removing at least a portion of said communications unit-associated data in said state from said communications message (pg. 7, Figure 2)

**With respect to 51,** In *RFC 3321*, Hannu discloses a compressor and decompressor, said removing means being provided in said compressor for compressing a communications message intended to said external communications unit by removing said at least a portion of said communications unit-associated data in said state from said communications message (pg. 7, Figure 2)

**With respect to 52,** In *RFC 3321*, Hannu discloses said communications message is a reduced-size communications message and said processing means comprises means for adding at least a portion of said communications unit-associated data in said state to said reduced-size communications message (pg. 7, Figure 2)

**With respect to 53,** In *RFC 3321*, Hannu discloses a compressor and decompressor, said adding means being provided in said decompressor for decompressing a received compressed communications message from said external communications unit by adding said at least a portion of said communications unit-associated data in said state to said compressed communications message (pg. 7, Figure 2)

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther Benoit whose telephone number is 571-270-3807. The examiner can normally be reached on Monday through Friday between 7:30 a.m and 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2442

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

E.B.  
July 9, 2009

/Andrew Caldwell/  
Supervisory Patent Examiner, Art Unit 2442